



# Staff Report to the Planning, Zoning and Affordable Housing Committee

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**DATE: Monday, February 14, 2022**

**DEPARTMENT: Planning**

**APPLICATION NO.: OCP21-0006**

**SUBJECT: Various 2021 Official Community Plan Review Amendments – Climate Action**

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## **BACKGROUND:**

In 2010, the City of Langford developed the Community Energy and Emissions Reduction Strategy (CEERS). This strategy is comprised of 10-, 20- and 30- year greenhouse gas (GHG) reduction and energy consumption targets adopted by Council. In 2012, the overarching CEERS reduction targets were integrated into the City's Official Community Plan (OCP), outlined in Section 2.0.

The targets provide a baseline to track and monitor GHG reduction policies and ensure the City meets its commitments as a Signatory to the BC Climate Action Charter, and its statutory obligations under Bill 27 (The Local Government Statutes Amendment Act, 2008).

As of 2020, the City of Langford had the lowest per-capita GHG footprint in the CRD, and much of this success can be attributed to the City's robust OCP climate action policies and supporting CEERS strategy.

However, although CEERS informs the strategies for achieving Langford's climate action goals, the strategy is in need of review. Targets can be challenging to monitor, the dataset used to create them is out of date, and they require a costly third-party consultant for updates and maintenance.

Fortunately, recent changes to Regional and Provincial climate action strategies have provided Langford with a roadmap and much-needed opportunity to recalibrate our climate targets, policies and actions (e.g., CleanBC Roadmap 2030<sup>1</sup>, CRD Climate Action Strategy 2021<sup>2</sup>, CRD Regional Growth Strategy Indicator Report 2021<sup>3</sup>, and CRD EV Infrastructure Roadmap 2021<sup>4</sup>, CRD 2020 Energy and Emissions Inventory).

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<sup>1</sup> [Clean BC Roadmap 2030](#) Accessed online January 17, 2022

<sup>2</sup> [CRD Climate Action Strategy 2021](#) Accessed online January 17, 2022

<sup>3</sup> [CRD Climate Action Strategy Indicator Report 2021](#) Accessed online January 17, 2022

<sup>4</sup> [CRD Electric Vehicle Roadmap 2020](#) Accessed online January 17, 2022

These Provincial and Regional documents already align with many of the City's current policies; all that is needed is to adjust targets and supporting actions and policy in light of new data. Doing so will create a more robust GHG inventory to support attainable climate action and help Langford and its regional partners accurately track performance each year.

**COMMENTARY:**

Considering the above, Council may wish to retire CEERS entirely, adopt the more current targets and strategy work found in the aforementioned Regional and Provincial documents, and embed these in the climate policies and actions of the OCP. Council may also wish to establish a new Development Permit Area for Climate Action. This type of DP authority provides another useful tool for aligning the City's climate action strategies with the Provincial and Regional government's broader action on climate change.

These strategies will help Langford reach the remaining 20-year (2030) and 30-year (2040) climate action targets.

If Council supports these changes, staff will further review the conditions around establishing DP Area boundaries for Climate Action, monitor whether any actions and policies need to be updated in light of more current data, and report back to Council prior to implementation.

**Objective 2.4 Climate Action Policy Context**

**Existing Provisions:**

"In order to implement the objectives of this OCP and fulfill the Climate Action Charter and Bill 27 requirements, the City will develop and maintain a community energy and emissions reduction strategy document (CEERS) that sets out a comprehensive long-term framework to achieve significant reductions in the use of energy at both a community-wide and operations level, and to reduce GHG emissions within the city".

**Staff Comments:**

The City can maintain its obligations to the Climate Action Charter and Bill 27 by replacing CEERS with a revised set of actions and targets informed by more current data and work already done in Provincial and Regional climate documents, and embed these in the OCP's existing climate actions and policies in Section 2. These policies will support the legislation by measuring and reporting on GHG emissions and setting key indicators.

**Proposed Change:**

Objective 2.4 is amended by striking out the Existing Provisions (above) and substituting the following:

- a. In order to implement the objectives of this OCP and fulfill the Climate Action Charter and Bill 27 requirements, the City will align long-term emissions reduction targets with Provincial and Regional energy and emissions strategies, in collaboration with local industry and institutions, other levels of government, neighboring municipalities, and First Nations, for the development and execution of climate action and resiliency initiatives.
- b. Set targets for reducing GHGs within the City and track and maintain these targets. Integrate these measures into the decision-making process.

**Objective 2.5 “Langford will be a national model of sustainable, resilient and energy secure community”****Existing Provisions:**

- 1) Integrate CEERS into all aspects of community planning. Create mechanisms to incorporate energy and emissions considerations into all municipal decision making
- 2) Collaborate with a broad range of stakeholders to implement CEERS.
- 3) Use CEERS as a catalyst for better integration/engagement of the City, B.C Transit, the development industry, local institutions, and neighboring municipalities.

**Staff Comments:**

As mentioned, Council may wish to replace CEERS with a revised set of policy actions and targets directly embedded in the OCP.

Staff are proposing to align some of these policies directly with Provincial and Regional strategies. This will support regional collaboration, reduce consulting costs, and simplify the entire planning

process by allowing the City to internally adjust actions as needed.

**Proposed Change:**

Objective 2.5 is amended by striking out 1-3 above and substituting A-B below.

- A.** Align GHG reduction targets with energy and emissions targets set by the Regional and Provincial strategies. Continue to create and maintain mechanisms to incorporate emission reductions and overall climate considerations into municipal decision-making process.
- B.** Collaborate with neighbouring municipalities and other external agencies to implement related GHG reduction targets.

**Objective 2.6 Climate Action Targets****Existing provisions***Overarching Targets*

Target	2020	2030	2050
Per capita greenhouse gas emissions change (%/tonnes CO <sub>2</sub> e)	-48%/2.6	-64%/1.8	-84%/0.8
Total greenhouse gas emissions change	-15%	-25%	-33%
Energy Use Reductions per capita	-34%	-54%	-70%
Total Energy Use Change	-3%	+6.4%	+8.6%
Local Employment for local residents (total # of jobs)	5,000	5,000	13,000
% of total energy supply in new building through clean, local, renewables	5%	10%	20%

*Transportation Targets*

Target	2020	2030	2050
Biking	8%	12%	20%
Walking	12%	16%	25%
Transit	15%	20%	30%
Driving	65%	52%	25%
Automobile ownership/household (baseline 1.59)	1.2	1.04	0.62

**Staff Comments**

The data in the table above are the existing targets set in the OCP. These are based on the Provincial government's Community Energy and Emissions Inventory Initiative (CEEI). The 2007 data represents part of the baseline data for Langford's Community Energy Emissions Reduction Strategy (CEERS).

Staff are proposing to revise the targets and associated action and policy to better reflect existing emissions data, capture our existing population growth, employment base, and align targets with those set by the Province and the CRD in 2021. This will simplify the planning process by allowing the City to

internally track GHG emissions and other policy objectives on a community-wide level and an operational level, and adjust actions as needed.

Staff are also proposing to add new targets that have a significant impact on GHG emissions but may not be easily quantified in terms of direct GHG emissions (e.g., increasing walk scores, densifying city centre, providing a diversity of housing types, etc.). Greater efficiency and emissions reduction can be achieved through long-term planning that focuses on connected and efficient land use. These new targets (presented below) are partly based on indicators established by the CRD and Province in 2021. Many of these targets may be achieved through either Zoning or DP Area powers.

### **Proposed revisions**

Objective 2.6 is amended by striking out the targets above and substituting with 1 – 11 below.

### **Overarching Targets**

- 1) Decrease per-capita community GHG emissions from residential energy consumption by 10% below 2020 levels by 2030
- 2) Reach Net-Zero in corporate operations by 2050
- 3) Decrease per-capita community-wide GHG emissions by 61% from 2007 levels by 2038
- 4) Work with BC Transit to increase the proportion of residents within a 5-minute walk to frequent transit stations by 25% by 2030
- 5) Increase the proportion of local jobs to 0.36 jobs per person by 2038. This will reduce personal vehicle driving distances
- 6) All areas of Langford's City Centre will have a walk score of 70 or higher by 2038 (indicating most errands can be accomplished on foot)
- 7) Discourage urban sprawl by supporting residential density in the City Centre with a Floor Area Ratio (FAR) between 3 and 6
- 8) Achieve an active transportation system where 42% of all trips are made by walking, cycling and transit by 2038
- 9) Require 100% of residential parking stalls in new multi-family buildings to be "EV-Ready" for

Level 2 Charging

- 10) Encourage all new buildings and structures to use materials composed of low embodied carbon (e.g mass timber, low carbon concrete)
- 11) Implement policies that support 25% of all vehicles in Langford to be electric by 2030 (between 7,500 and 8,000 vehicles)

**Objective 2.7 Implementation Actions**

**Existing Provisions**

- 1) Monitor and adapt the strategies contained in CEERS over time to ensure the city is on track to meet the GHG and energy use reduction targets and Climate Action Charter commitments.
- 2) Increase public awareness and provide informational material on the City’s website and other outlets about the benefits of CEERS

**Staff Comments**

Use of the best available datasets is fundamental to achievable climate action policy. Council may wish to replace the CEERS targets and policies with revised datasets provided by the CRD and Province in 2021 and a new DP Area for Climate Action.

Staff will report progress annually, and assess whether actions need to be adapted, shifted or updated to reflect changing context or opportunities.

**Proposed Revisions and Additions**

Objective 2.7 is amended by striking out 1-2 above and substituting A-B below.

- A. Monitor GHG reduction targets and policies annually to ensure the City is on track to meet the GHG and energy use reduction targets and Climate Action Charter commitments.
- B. Increase public awareness and provide informational material on the City’s website and other outlets highlighting annual GHG emissions.

**Appendix W: Development Permit Area for Climate Action****Staff Comments:**

As a community with a strong development market and a positive working relationship with the development/building sector, Langford is well positioned to adopt a new DP Area for Climate Action.

Much of the work to date around GHG reductions has centred on the siting of buildings, proximity to transit, or equipment and systems external to buildings and other structures (e.g., rainwater collection systems, geothermal systems). The next big step is to focus on a reduction of total embodied carbon in buildings. Embodied carbon in a building context refers to the total GHG emissions created through a building's lifecycle – from material extraction through manufacturing, transportation, construction, maintenance, and end-of-life disposal or reuse.

The Province's CleanBC Roadmap 2030 Strategy makes low embodied carbon a key strategy for 2023 and beyond.

The City is already ahead of the curve through its recently adopted Carbon Mineralization Policy (POL-1067) and the EV-Ready policy. These policies are designed to help the City reach its targets for residential GHG emissions and on-road transportation by 2030 and become net-zero by 2040<sup>5</sup>.

However, the specific powers for DP Areas with respect to climate action is still under legal review. It is not yet clear if carbon mineralization falls under the regulatory powers of DP Areas. Council may wish to support the adoption of a DP Area for Climate Action in principle, subject to a full legal review, and then staff will report back prior to implementation. It is expected the DP Area would apply to the entire City, which will capture all future multi-family buildings as well as other types of buildings as deemed appropriate by Council. Additional climate action strategies could also be added over time.

**Proposed Changes:****1) The following applies to those lands identified as being within the Climate Action Development Permit Area:**

- I. The use of low embodied carbon building materials in all City-led capital improvement projects and private construction projects, using post-industrial CO<sub>2</sub> mineralization technology, or an equivalent which offers concrete with lower embodied CO<sub>2</sub> than all other competing bids, where use of such materials does not significantly increase costs or delay the project (Subject to a legal review)

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<sup>5</sup> Net-zero in this case refers to operations that remove (sequester) more GHG from the atmosphere than they produce over their lifecycle.



- II. Track total embodied carbon for all new concrete projects, using Type III Environmental Product Declarations, where applicable (Subject to a legal review)
- III. Require 100% of resident parking stalls in new developments containing multi-family residential units to be energized and capable of providing L2 charging in the future.
- IV. Where EV charging is required, the following must be included at the time of building permit application:
  - a. A site plan that shows the location, number and specifications of all energized parking spaces; and
  - b. A memo from an electrical engineer that verifies that the load capacity of the building can provide L2 EV charging to all residential stalls.
- V. Where load sharing is employed, an electrical engineer shall verify that Level 2 charging can achieve at least 12kWh per vehicle over an eight-hour period when all vehicles are charging simultaneously (i.e. allocate at least 8A per vehicle on a 208V or 240V circuit, if all vehicles are sharing power equally.
- VI. No more than 1 vehicle should be able to charge on a 20A circuit and no more than 2 vehicles on a 30A circuit.
- VII. Greater allowable levels of sharing are possible beyond 80A (**See Table 1 below**)
- VIII. Where Environmental Management Systems are employed, the developer shall provide and install all communications equipment, control systems, and other devices required to operate the EVEMS and include a covenant that requires the strata to maintain the EMS in perpetuity
- IX. The developer shall ensure that all necessary permits, authorizations and variances under the Safety Standards Act, SBC 2003, c. 39, and the Electrical Safety Regulation, BC Reg. 50/2017, have been obtained for the installation and operation of the EVEMS, prior to occupancy permit.
- X. Prior to occupancy permit, the owner shall provide a compliance form certified by a registered professional or qualified electrician, confirming that the energized spaces, and equipment meet the requirements of the EV plan.
- XI. Where an EVEMS is implemented (Load Sharing), provisions for management and maintenance should be provided to the building owner, strata and/or dwelling unit owner

XII. Where load sharing is employed, the following table (Table 1) provides the minimum performance standard:

<b>New MURB Developments EV Ready Level 2 Performance Requirements for Langford</b>	
<b>Circuit breaker amperage</b>	<b>Maximum number of EV ready Parking Spaces Energized</b>
20	1
30	2
40	4
50	5
60	6
70	7
80	8
90	10
100	11
125	14
150	17

## **ADDITIONAL HOUSEKEEPING**

### *Sand and Gravel*

In accordance with the *Local Government Act* Section 473(1)(c), an OCP must include statements and map designations for the area covered by the plan respecting sand and gravel deposits.

Considering the above, Council may wish to add the following as section 13.20 to the OCP:

- As a fully urbanized municipality, there are no sand and gravel deposits suitable for sand and gravel extraction in the City of Langford.

## **FINANCIAL IMPLICATIONS:**

There are no financial implications for the above noted amendments. While many of the actions discussed in this report can be accomplished within existing service levels, any increased service adjustments would be vetted through Council prior to implementation.

**LEGAL IMPLICATIONS:***Tracking and Reporting GHG emissions*

The City of Langford is bound by the *Local Government Act* (LGA) and its commitments as a Signatory to the BC Climate Action Charter and its statutory obligations under Bill 27 with respect to setting GHG reduction targets and tracking emissions. However, only one target must be defined as the emissions reduction target; others may include targets related to land use, transportation or other planning activities that have an effect on energy use in the community. This is typically expressed as either a percentage reduction, or a number of tonnes reduction.

Bill 27 does not require an inventory to be included within the OCP. It is possible to identify actions in an OCP without having an inventory.

*Establishing Development Permit Area for Climate Action*

The LGA provides the authority for local governments to designate areas and/or specify circumstances in which development approval information can be required. The DPA authority is intended to apply to specific features or equipment that are exterior to buildings. It's possible that carbon mineralization will not fall under these DP powers as this policy is considered internal to the building. Staff have consulted with the city's legal team and will report back to Council as soon as possible.

**OPTIONS****Option 1**

THAT the Planning, Zoning and Affordable Housing Committee recommend that Council:

Direct staff to prepare a bylaw to amend to the Official Community Plan such that:

- 1) Objective 2.4 is amended by striking out the existing provisions and substituting the following:
  - a. In order to implement the objectives of this OCP and fulfill the Climate Action Charter and Bill 27 requirements, the City will align long-term emissions reduction targets with Provincial and Regional energy and emissions strategies, where appropriate, in collaboration with local industry and institutions, other levels of government, neighboring municipalities, and First Nations, for the development and execution of climate action and resiliency initiatives.
  - b. Set targets for reducing GHGs within the City and track and maintain these targets. Integrate these measures into the decision-making process.
- 2) Objective 2.5 is amended by striking out the existing provisions and substituting the following:

- a. Align GHG reduction targets with energy and emissions targets set by the Regional and Provincial governments, where appropriate. Continue to create and maintain mechanisms to incorporate emission reductions and overall climate considerations into municipal decision-making process.
  - b. Collaborate with neighbouring municipalities and other external agencies to implement related GHG reduction targets.
- 3) The following is added as section 13.20:
- a. As a fully urbanized municipality, there are no sand and gravel deposits suitable for sand and gravel extraction in the City of Langford.
- 4) Objective 2.6 is amended by striking out the OCP overarching targets and substituting with the following:
- a. Decrease per-capita community GHG emissions from residential energy consumption by 10% below 2020 levels by 2030;
  - b. Reach Net-Zero in corporate operations by 2050;
  - c. Decrease per-capita community-wide GHG emissions by 61% from 2007 levels by 2038;
  - d. Work with BC Transit to increase the proportion of residents within a 5-minute walk to frequent transit stations by 25% by 2030;
  - e. Increase the proportion of local jobs to 0.36 jobs per person by 2038. This will reduce personal vehicle driving distances;
  - f. All areas of Langford's City Centre will have a walk score of 70 or higher by 2038 (indicating most errands can be accomplished on foot);
  - g. Discourage urban sprawl by supporting residential density in the City Centre with a Floor Area Ratio (FAR) between 3 and 6;
  - h. Achieve a transportation system that sees 42% of all trips made by walking, cycling and transit by 2038;
  - i. Require 100% of residential parking stalls in new developments containing multi-family residential units to be "EV-Ready";

- j. Implement policies that support 25% of all vehicles in Langford to be electric by 2030 (between 7,500 and 8,000 vehicles);
  - k. Encourage all new building and structures to use materials composed of low embodied carbon (e.g mass timber, low carbon concrete).
- 5) Objective 2.7 is amended by striking out 1-2 above and substituting a-b below.
- a. Monitor GHG reduction targets and policies annually to ensure the City is on track to meet the GHG and energy use reduction targets and Climate Action Charter commitments.
  - b. Increase public awareness and provide informational material on the City's website and other outlets highlighting annual GHG emissions.
- 6) By creating a new Climate Action DP Area designation;

AND Direct staff to prepare a bylaw to amend to the Zoning Bylaw:

- 7) By adding the following as Appendix W – DP Area for Climate Action:
- a. Require the use of low embodied carbon building materials in all City-led capital improvement projects and private construction projects where use of such materials does not significantly delay the project **(this will be subject to legal review)**;
  - b. Track total embodied carbon for all new concrete projects, using Type III Environmental Product Declarations, where applicable **(subject to legal review)**;
  - c. Require 100% of resident parking stalls in new developments containing multi-family residential units to be energized and capable of providing L2 charging in the future;
  - d. Where EV charging is required, the following must be included at the time of building permit application:
    - i. A site plan that shows the location, number and specifications of all energized parking spaces; and
    - ii. A memo from an electrical engineer that verifies that the load capacity of the building can provide L2 EV charging to all residential stalls;

- e. Where load sharing is employed, an electrical engineer to verify that Level 2 charging can achieve at least 12kWh per vehicle over an eight-hour period when all vehicles are charging simultaneously (i.e. allocate at least 8A per vehicle on a 208V or 240V circuit, if all vehicles are sharing power equally;
- f. The developer shall ensure that all necessary permits, authorizations and variances under the Safety Standards Act, SBC 2003, c. 39, and the Electrical Safety Regulation, BC Reg. 50/2017, have been obtained for the installation and operation of the EVEMS, prior to occupancy permit;
- g. Prior to occupancy permit, the owner shall provide a compliance form certified by a registered professional or qualified electrician, confirming that the energized spaces, and equipment meet the requirements of the EV plan;
- h. Where an EVEMS is implemented (Load Sharing), provisions for management and maintenance should be provided to the building owner, strata and/or dwelling unit owner;
- i. No more than 1 vehicle should be able to charge on a 20A circuit and no more than 2 vehicles on a 30A circuit;
- j. Greater allowable levels of sharing are possible beyond 80A (**See Table 1 below**);
- k. Where Environmental Management Systems are employed, the developer shall provide and install all communications equipment, control systems, and other devices required to operate the EVEMS and include a covenant that requires the strata to maintain the EMS in perpetuity;
- l. Where load sharing is employed, the following table (**Table 1**) provides the minimum performance standard:

New MURB Developments EV Ready Level 2 Performance Requirements for Langford	
Circuit breaker amperage	Maximum number of EV ready Parking Spaces Energized
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50	5
60	6
70	7
80	8
90	10
100	11
125	14
150	17

**OR**

**Option 2**

THAT the Planning, Zoning and Affordable Housing Committee recommend that Council:

- 1) Do nothing at this time with respect to amending the OCP and establishing a new Development Permit Area for Climate Action.

**SUBMITTED BY: David Sametz, MCIP, RPP, Long Range Planner II**

**Concurrence:** Leah Stohmann, MCIP, RPP, Deputy Director of Planning and Subdivision

**Concurrence:** Matthew Baldwin, MCIP, RPP, Director of Planning and Subdivision

**Concurrence:** Donna Petrie, Manager of Business Development and Events

**Concurrence:** Matthew Baldwin, MCIP, RPP, Director of Planning and Subdivision

**Concurrence:** Michelle Mahovlich, P.Eng, P.Geo, Director of Engineering and Public Works

**Concurrence:** Michael Dillabaugh, CPA, CA, Director of Finance

**Concurrence:** Marie Watmough, Acting Director of Corporate Services

**Concurrence:** Darren Kiedyk, Chief Administrative Officer